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IDENTIFIERS Project HIRE

ABSTRACT

Designed as supplemental material to on-going instruction in the vocational program, this first of three picture dictionary booklets in the Arc Welding series is intended to assist the learning handicapped student to master the core vocabulary taught in the trade. Intended for individual or small group instruction with minimal supervision, this module contains four lessons: (1) Safety, (2) Outer Clothes, (3) Operation of Equipment, and (4) Work Area. The format for each lesson is (1) general directions, including a list of words taught in that lesson, and (2) each word presented on a separate page with a representative picture and simple definition. (The module is intended for use with a cassette tape and flash cards.) An alphabetical index to the vocabulary words in the module is given at the back of the booklet. Two other dictionaries in this series are available as CE 024 412 and CE 024 413. An accompanying teacher's manual is available separately as CE 024 410. (This is one of five series of materials developed by Project HIRE. The two-volume final report of the project is available as CE 024 117 and CE 024 118. See Note for the other series.) (YLB)

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Arc Welding

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Dictionary

PROJECT NINE

411

CE024

Arc Welding Dictionary

For Resource Room Instruction

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School of Education**

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ARC WELDING I

Safety

Table of Contents

<u>Lesson No.</u>	<u>Lesson</u>	<u>Page No.</u>
1	Safety	1
2	Outer Clothes	13
3	Operation of Equipment	25
4	Work Area	33

BOOK I

Lesson 1

SAFETY

ARC WELDING

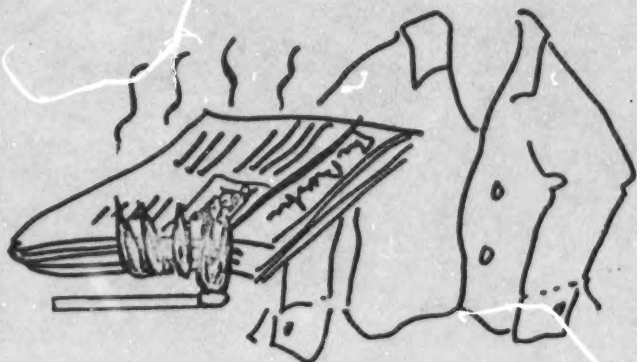
Book I

DIRECTIONS:

1. The words in this lesson are:

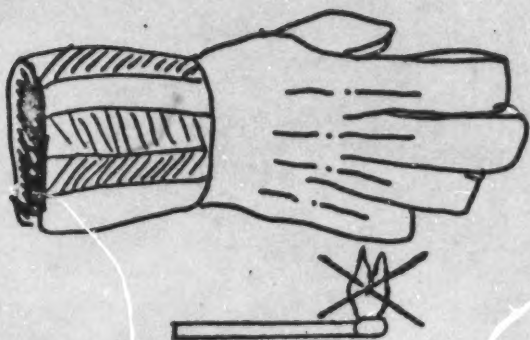
combustible
non-combustible
synthetic
heat resistant
frayed
coating
sparks and spatter
jewelry
hair net
steel toe shoe
glare
filter lens

2. Each word has its own page with a picture. Under the picture, you will find the meaning of the word.
3. Turn the pages and look at the words while you listen.
4. When you get to the last word, turn back to page 1. The tape will say the words again.



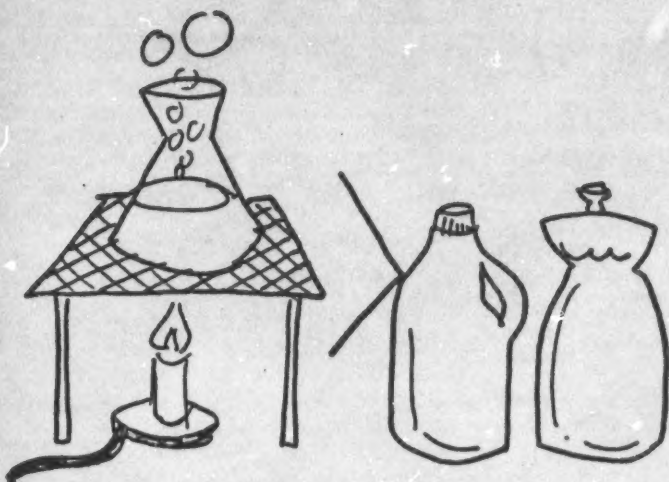
combustible

Combustible means that clothing will burn when touched by fire.



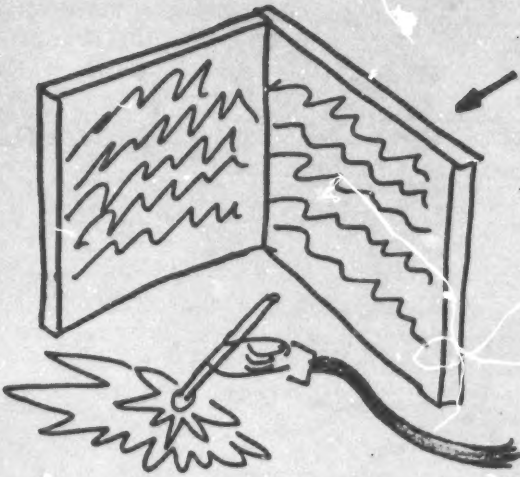
non-combustible

Non-combustible means
that clothing will not
burn when touched by fire.



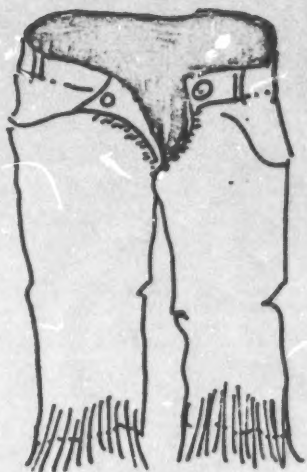
synthetic

Synthetic means made by man. Some clothes are synthetic. Many synthetic clothes are non-combustible.



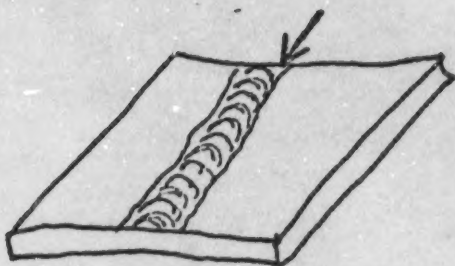
heat resistant

Heat resistant means that something can take a certain amount of heat without burning. You should wear heat resistant clothes when welding.



frayed

Frayed means that threads
at the edge of cloth
are loose and worn.
Frayed clothes may catch
on fire during welding.



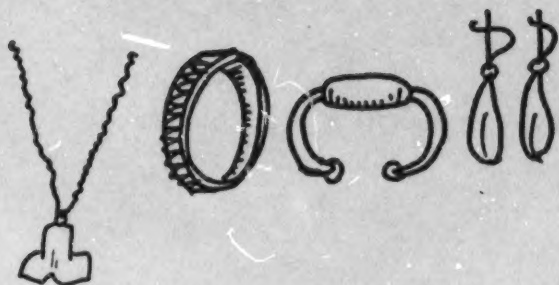
coating

Coating is a thin sheet that comes from the melting electrode. It spreads over the metal during welding and protects the weld as it cools.



sparks and spatter

Sparks and spatter are small pieces of burning metal and coating that spray during welding. Wear special clothing to protect yourself from sparks and spatter.



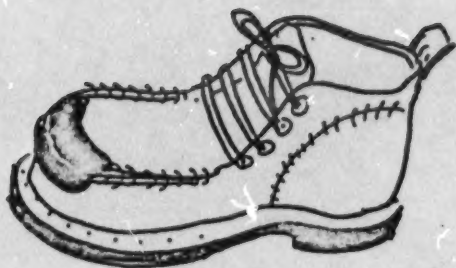
jewelry

Jewelry means chains, rings, watches. Jewelry should not be worn around machines or during welding.



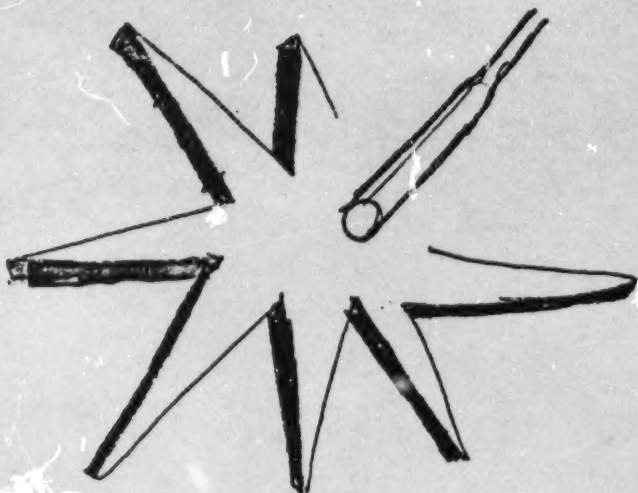
hair net

A hair net keeps the hair in place so that it does not catch on fire or block sight.



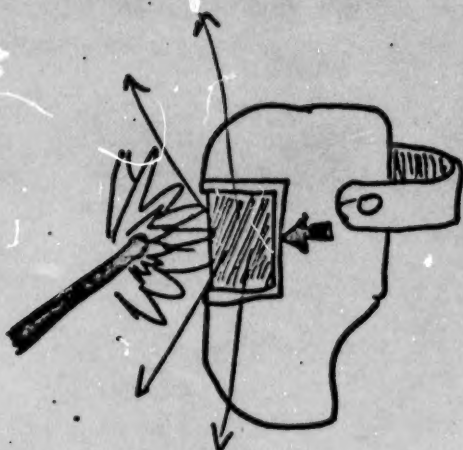
steel toe shoe

A steel toe shoe has a metal toe to protect the foot. You wear steel toe shoes to stop damage from heavy falling objects.



glare

Glare is very bright
light that comes from
welding. Protect your
eyes from glare.



filter lens

Filter lens is a safety colored glass that protects an arc welder from harmful glare from arc welding.

DIRECTIONS CONTINUED:

1. Now you should get cards 1 to 12.
from the box.
2. When you have the cards, look at the first picture and see if you know the meaning of the word.
3. Turn the card over and see if you are right.
4. Do the other cards in the same way.
5. If you do not get each one right, listen to the tape again. Then try the cards again.
6. If you do get them all right, ask your teacher for Activity 1.
Now rewind this tape and get cards 1 to 12.

BOOK I

Lesson 2

SAFETY

ARC WELDING

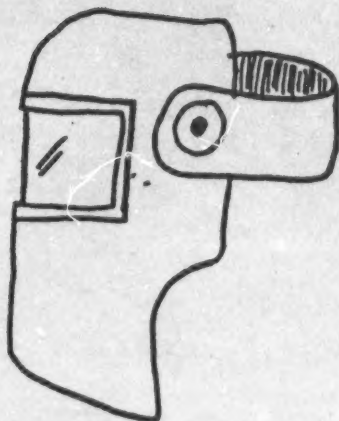
Book I

DIRECTIONS:

1. The words in this lesson are:

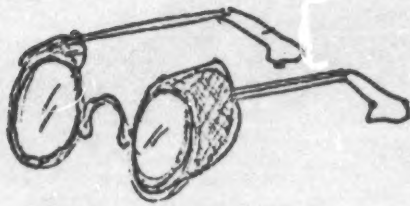
helmet
safety goggles
side shield
flash goggles
radiation
leather jacket
leather bib
leather sleeves
leather leggings
leather gloves
welder's cap
slag

2. Each word has its own page with a picture. Under the picture, you will find the meaning of the word.
3. Turn the pages and look at the words while you listen.
4. When you get to the last word, turn back to page 13. The tape will say the words again.



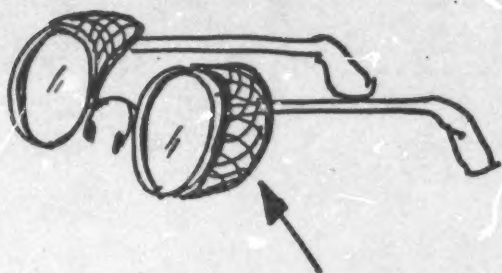
helmet

A helmet is a hood with safety glass and colored filter lens. Wear a helmet to protect your head and eyes from sparks and spatter.



safety goggles

Safety goggles are large, clear eyeglasses with guards on the sides. Wear safety goggles to protect your eyes.



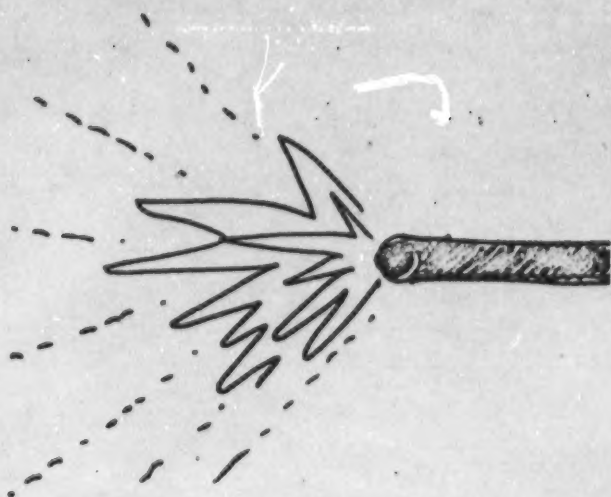
side shield

A side shield is a guard on the side of safety goggles that protect the eyes from sparks.



flash goggles

Flash goggles are large eyeglasses with guards on the sides. Flash goggles have green glass. Wear goggles to protect your eyes.



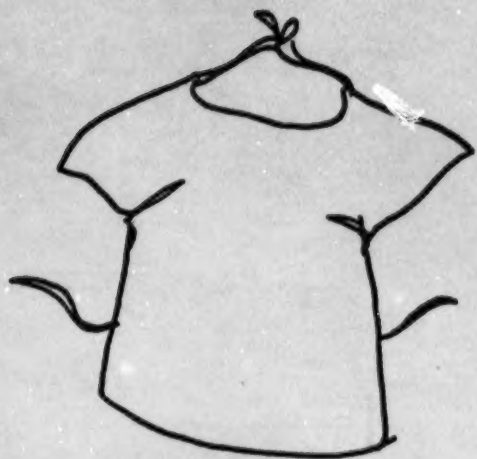
radiation

Radiation is the heat and very bright light given off during welding. Always protect your eyes and body from radiation.



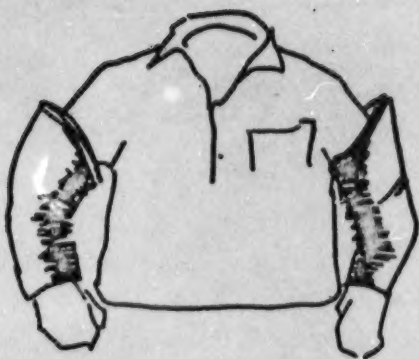
leather jacket

A leather jacket is worn when arc welding. The jacket protects your chest and arms from sparks, spatter and radiation.



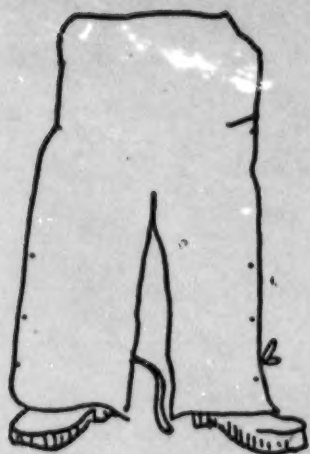
leather bib

A leather bib protects the chest from sparks, spatter and radiation from arc welding.



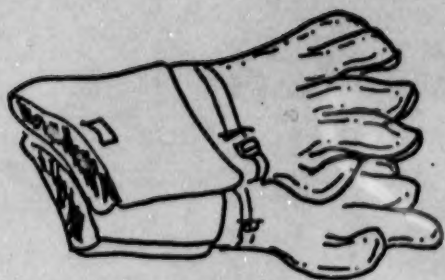
leather sleeves

Leather sleeves fit around the arms and protect them from sparks, spatter and radiation from arc welding.



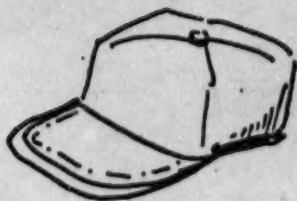
leather leggings

Leather leggings are a covering that protect your legs from sparks, spatter and radiation from arc welding.



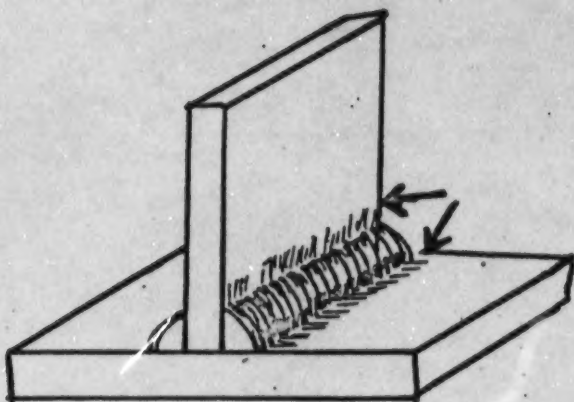
Leather gloves

Leather gloves are long gloves that protect the hand and arm from sparks, spatter and radiation from arc welding.



welder's cap

A welder's cap is a cotton cap that protects hair and ears from sparks and spatter when arc welding over head.



slag

Slag is hot waste metal and coating from arc welding. Wear heat resistant clothes and safety glasses for protection.

DIRECTIONS CONTINUED:

. Now you should get cards 13 to 24 from the box.

. When you have the cards, look at the first picture and see if you know the meaning of the word.

Turn the card over and see if you are right.

. Do the other cards in the same way.

If you do not get each one right, listen to the tape again. Then try the cards again.

If you do get them all right, ask your teacher for Activity 2.

Now rewind this tape and get cards 13 to 24.

BOOK I

Lesson 3

Operation of Equipment

ARC WELDING

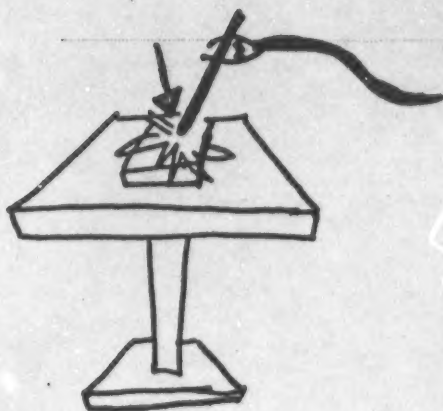
Book I

DIRECTIONS:

1. The words in this lesson are:

arc
electric shock
insulation
disconnect
loose connection
amperage
Fahrenheit
abrasion

2. Each word has its own page with a picture. Under the picture, you will find the meaning of the word.
3. Turn the pages and look at the words while you listen.
4. When you get to the last word, turn back to page 25. The tape will say the words again.



arc

An arc is the flow of electricity through the air between two points. It gives a bright light.



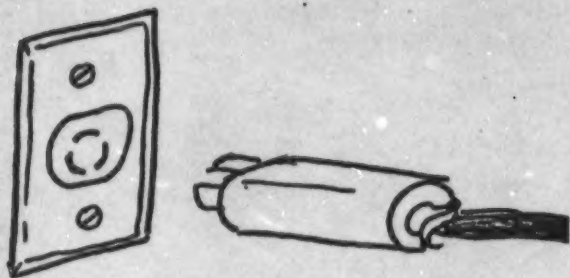
electric shock

An electric shock can be very dangerous. Check equipment and area before use so you don't get an electric shock.



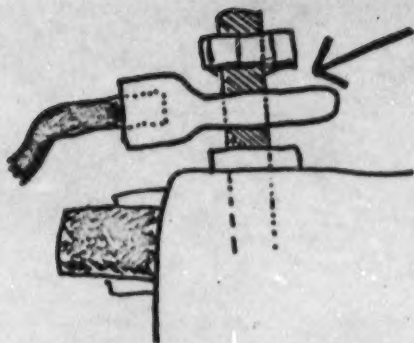
insulation

Insulation is material that does not carry electricity. Arc welding equipment has insulation to prevent short circuits and shocks.



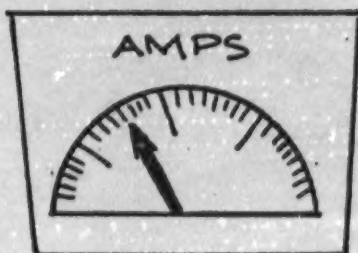
disconnect

Disconnect means to stop the electricity. If equipment will not run, check power cable for disconnect.



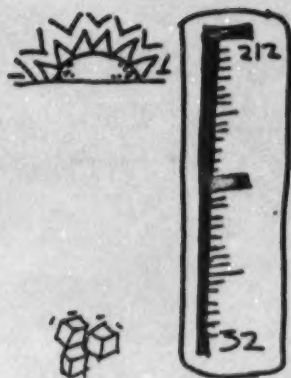
loose connection

A loose connection means that machinery will not work because it is not fastened correctly to the power.



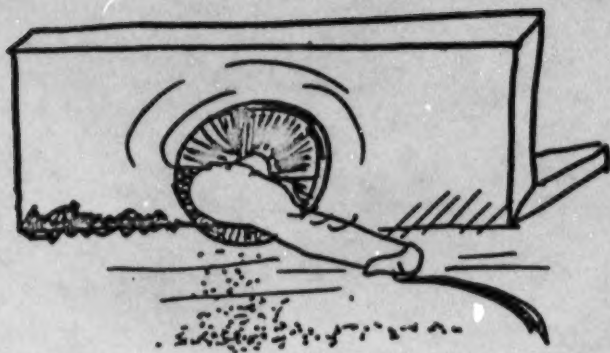
amperage

Amperage means the amount of electricity that is sent through an arc welding cable.



Fahrenheit

Fahrenheit is a way to
measure how hot or cold
it is.



abrasion

Abrasion means wearing away by grinding or scraping.

DIRECTIONS CONTINUED:

1. Now you should get cards 25 to 32 from the box.
2. When you have the cards, look at the first picture and see if you know the meaning of the word.
3. Turn the card over and see if you are right.
4. Do the other cards in the same way.
5. If you do not get each one right, listen to the tape again. Then try the cards again.
6. If you do get them all right, ask your teacher for Activity 3.
Now rewind this tape and get cards 25 to 32.

BOOK I
Lesson 4
Work Area

ARC WELDING

Book I

DIRECTIONS:

1. The words in this lesson are:

safety procedures
fire extinguisher
housekeeping
flash
toxic fumes
ventilation
duct
moisture
ray
infrared
molten metal

2. Each word has its own page with a picture. Under the picture, you will find the meaning of the word.
3. Turn the pages and look at the words while you listen.
4. When you get to the last word, turn back to page 33. The tape will say the words again.



safety procedures

Safety procedures are
the rules to follow to
keep from getting hurt.



fire extinguisher

A fire extinguisher is
a can that holds a
special liquid to put
out fire.



housekeeping

Housekeeping means
cleaning the work area.



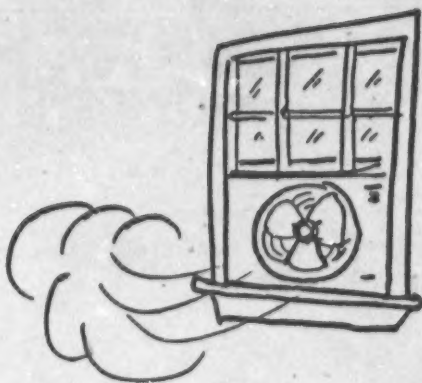
flash

Flash is a sudden burst of light or heat. This flash will hurt your eyes if they are not protected.



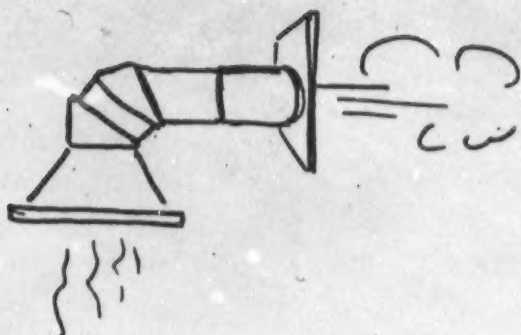
toxic fumes

Toxic fumes are gases
or smells that poison.



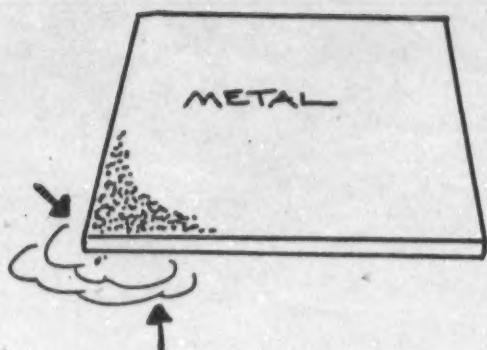
ventilation

Ventilation means
bringing in good air
and taking out bad air
and toxic fumes.



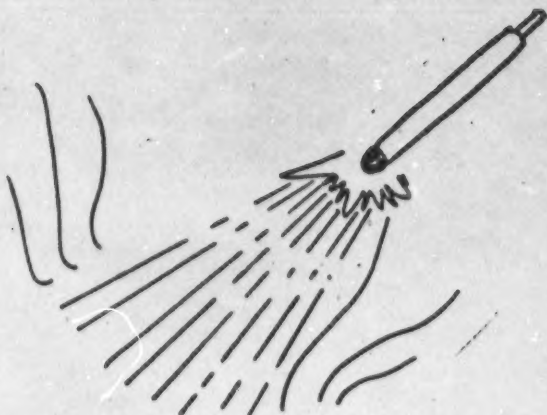
duct

A duct is a tube through which fumes or liquids pass. A duct will take out the bad air near an arc welding work area.



moisture

Moisture is a wetness caused by water or other liquid. A safe arc welding work area has no moisture.



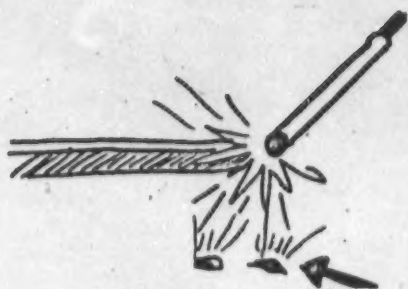
ray

A ray is a thin line of light or heat which you cannot see. This ray will burn eyes and skin if they are not protected.



infrared

Infrared heat is caused by heat rays that you cannot see. Infrared heat can cause a burn so wear protective clothes.



molten metal

Molten metal means that metal becomes a liquid when it is very, very hot.

DIRECTIONS CONTINUED:

1. Now you should get cards 33 to 43 from the box.
2. When you have the cards, look at the first picture and see if you know the meaning of the word.
3. Turn the card over and see if you are right.
4. Do the other cards in the same way.
5. If you do not get each one right, listen to the tape again. Then try the cards again.
6. If you do get them all right, ask your teacher for Activity 4. Now rewind this tape and get cards 33 to 43.

ARC WELDING I

Safety

Alphabetical Index

	<u>Vocabulary Word</u>	<u>Page No.</u>
A	abrasion	32
	amperage	30
	arc	25
C	coating	6
	combustible	1
D	disconnect	28
	duct	39
E	electric shock	26
F	Fahrenheit	31
	fire extinguisher	34
	filter lens	12
	flash	36
	flash goggles	16
	frayed	5
G	glare	11
H	hair net	9
	heat resistant	4
	helmet	13
	housekeeping	35

INDEX CONTINUED

Page 2

I	infrared	42
	insulation	27
J	jewelry	8
L	leather bib	19
	leather gloves	22
	leather jacket	18
	leather leggings	21
	leather sleeves	20
	loose connection	29
M	moisture	40
	molten metal	43
N	non-combustible	2
R	radiation	17
	ray	41
S	safety goggles	14
	side shield	33
	slag	24
	sparks	7
	splatter	7
	steel toe shoe	10
	synthetic	3
T	toxic fumes	37

V ventilation 38

W welder's cap 23

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